



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2013-0130; Directorate Identifier 2013-NE-07-AD]

RIN 2120-AA64

Airworthiness Directives; Hartzell Propeller, Inc. Propellers

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for Hartzell Propeller, Inc. propeller models HC-(1, D)2(X, V, MV)20-7, HC-(1, D)2(X, V, MV)20-8 and HC-(1, D)3(X, V, MV)20-8. This proposed AD was prompted by failures of the propeller hydraulic bladder diaphragm and resulting engine oil leak. This proposed AD would require replacement of the propeller hydraulic bladder diaphragm. We are proposing this AD to prevent propeller hydraulic bladder diaphragm rupture, loss of engine oil, damage to the engine, and loss of the airplane.

DATES: We must receive comments on this proposed AD by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Hartzell Propeller, Inc., 1 Propeller Place, Piqua, OH 45356; phone: 937-778-4200; email: techsupport@hartzellprop.com. You may view this service information at the FAA, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Mark Grace, Aerospace Engineer, Chicago Aircraft Certification Office, FAA, Propulsion Branch, 2300 E. Devon Avenue, Des Plaines, IL 60018; phone: 847-294-7377; fax: 847-294-7834; email: mark.grace@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2013-0130; Directorate Identifier 2013-NE-07-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all

comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

We received a report of Hartzell propeller failures of the variable pitch propeller hydraulic bladder diaphragm, part number (P/N) B-119-2, without tab, resulting in engine oil leakage. The variable pitch propeller control mechanism uses engine oil as a hydraulic fluid. Failure of this bladder diaphragm results in engine oil loss with oil covering the airplane windshield and may lead to uncommanded loss of engine power. This condition, if not corrected, could result in loss of engine oil, damage to the engine, and loss of the airplane.

Relevant Service Information

We reviewed Hartzell Alert Service Bulletin (ASB) HC-ASB-61-338, Revision 1, dated December 18, 2012. The ASB lists the propeller hub models that are affected and describes procedures for replacement of propeller hydraulic bladder diaphragm with a new propeller hydraulic bladder diaphragm, P/N B-119-2, with tab.

Hartzell Propeller has redesigned bladder diaphragm, P/N B-119-2, to include a tab containing the bladder diaphragm batch/lot number. The tab with batch/lot number is visible after installation. The old design bladder diaphragm, P/N B-119-2 has no such tab.

FAA's Determination

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements

This proposed AD would require removing the old propeller hydraulic bladder diaphragm and replacing it with the redesigned part.

Differences Between the Proposed AD and the Service Information

Hartzell ASB HC-ASB-61-338, Revision 1, dated December 18, 2012, recommends replacement of all affected bladder diaphragms within 10 flight hours. This proposed AD would require replacement of affected bladder diaphragms within 12 months of the effective date of the AD. FAA risk analysis determined the 12 month period for compliance is acceptable.

Costs of Compliance

We estimate that this proposed AD would affect about 400 propellers installed on airplanes of U.S. registry. We also estimate that it would take about 4 hours per propeller to replace the bladder diaphragm. The average labor rate is \$85 per hour. We estimate parts costs at \$53 per engine. Based on these figures, we estimate the cost of the proposed AD on U.S. operators to be \$157,200. Our cost estimate is exclusive of possible warranty coverage.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority

because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

Hartzell Propeller, Inc.: Docket No. FAA-2013-0130; Directorate Identifier 2013-NE-07-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Hartzell Propeller, Inc. propeller models HC-(1, D)2(X, V, MV)20-7, HC-(1, D)2(X, V, MV)20-8 and HC-(1, D)3(X, V, MV)20-8 with a propeller hydraulic bladder diaphragm, part number (P/N) B-119-2, without tab, installed.

(d) Unsafe Condition

This AD was prompted by failures of the propeller hydraulic bladder diaphragm and resulting engine oil leak. We are issuing this AD to prevent propeller hydraulic bladder diaphragm rupture, loss of engine oil, damage to the engine, and loss of the airplane.

(e) Compliance

Comply with this AD within the compliance times specified, unless already done.

(f) Bladder Diaphragm Replacement

(1) Within 12 months after the effective date of this AD, remove from service the propeller hydraulic bladder diaphragm, P/N B-119-2, without tab.

(2) Install a redesigned propeller hydraulic bladder diaphragm, P/N B-119-2, with tab. The bladder diaphragm, eligible for installation, is identified by a tab with a batch/lot

number. The tab is visible after installation and confirms the installation of the proper redesigned propeller hydraulic bladder diaphragm, P/N B-119-2, with tab, in the Hartzell propeller assembly.

(g) Installation Prohibition

After the effective date of this AD, do not install into any engine any hydraulic bladder diaphragm, P/N B-119-2, that is without tab.

(h) Alternative Methods of Compliance (AMOCs)

The Manager, Chicago Aircraft Certification Office, FAA, may approve AMOCs for this AD. Use the procedures found in 14 CFR 39.19 to make your request.

(i) Related Information

(1) For more information about this AD, contact Mark Grace, Aerospace Engineer, Chicago Aircraft Certification Office, FAA, 2300 E. Devon Ave., Des Plaines, IL 60018; phone: 847-294-7377; fax: 847-294-7384; email: mark.grace@faa.gov.

(2) For service information identified in this AD, contact Hartzell Propeller Inc., 1 Propeller Place, Piqua, OH 45356-2634; phone: 937-778-4379; fax: 937-778-4391; email: techsupport@hartzellprop.com. You may view this service information at the FAA, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

Issued in Burlington, Massachusetts, on March 19, 2013.

Colleen M. D'Alessandro,
Assistant Manager, Engine & Propeller Directorate,
Aircraft Certification Service.

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